

Claims

Therefore, what I claim as my invention is:

1. A method of representing a sequence of references to information available on a communications network, said sequence of references changing in some predictable pattern, said method comprising the steps of:
 - a) locating examples of said sequence of references, where each reference consists of:
 - a non-changing part, which is at least some of the characters of said reference which are the same for all references in said sequence of references, and
 - a changing part, which is the remaining characters of said reference, said changing part resulting in each reference of said sequence of references being unique,
 - b) examining said changing part to determine said predictable pattern,
 - c) creating a template, said template comprising at least:
 - said non-changing part, and
 - one or more replacement indicators selected to both indicate said predictable pattern, as well as the position in said reference where said predictable pattern occurs, and
 - d) storing said template,
 - e) utilizing said template to later reconstruct any reference of said sequence of references, the specific reference reconstructed being specified according to a supplied index value, whereby storage requirements are reduced, and the need to update said storage whenever an additional reference in said sequence of references becomes available is eliminated, and whereby any desired reference can be easily specified through said index value.
2. The method of claim 1 wherein said information is stored at a content provider, and a plurality of said templates are stored at a third-party database.
3. The method of claim 1 wherein said information is stored at a content provider, and said template is also available from said content provider.
4. The method of claim 1 wherein said replacement indicators produce output selected from the group consisting of the:

- a) date, with or without a leading zeros for single-digit dates, as specified when selected
- b) month number, with or without a leading zero, for single-digit months, as specified when selected
- c) three-letter abbreviation for the month, all lower-case, with only the initial letter capitalized, or all capitalized, as specified when selected
- d) full month name, all lower-case, with only the initial letter capitalized, or all capitalized, as specified when selected
- e) week number, with or without a leading zero, for single-digit weeks, as specified when selected
- f) four-digit year
- g) least-significant two digits of the year
- h) count value, relative to a specified starting number, and with or without leading zeros, as specified when selected

where the above date-related values are relative to either a specified date or to the date when said template is used to generate an updated reference, as specified when said template is created,

whereby templates can be created which contain any combination of date and count components, along with non-changing characters,

whereby said templates can be used to generate references to information which is periodically updated.

5. The method of claim 1 wherein said index value is used to generate references to newly-created information.
6. The method of claim 1 wherein said template is sent from content provider directly to user.
7. The method of claim 1 further storing information of when said information which is periodically updated is updated.
8. The method of claim 1 wherein said index value is a numerical offset relative to the current date.
9. The method of claim 1 wherein said index value is a numerical offset relative to a specified absolute date.

10. The method of claims 8 or 9 wherein an increment value is specified to indicate the interval between updates.
11. The method of claim 10 wherein a previous or subsequent reference is generated from said template by multiplying an offset times said increment value and adding base date or count value used for the calculation of the reference.
12. A method of representing a series of references to information available on a communications network, comprising the steps of:
 - a) locating all references in said series of references,
 - b) building a table of said references, associating with each entry in said table an index value,
 - c) storing said table,
 - d) utilizing said table to later return any reference of said series of references, the specific reference returned being specified according to said index value, whereby any reference can be easily specified through said index value.
13. The method of claim 12 wherein the said series of references is periodically examined to determine whether any new references have been added to said series of references.
14. The methods of claims 1 or 12 wherein said index value is a numerical offset used to specify the particular reference desired.
15. The methods of claims 1 or 12 wherein a record is maintained of references and the time and date used, said record being used to determine whether references have already been used, whereby users can have the choice of not again receiving information which they have previously received.
16. The methods of claims 1 or 12 wherein a record is maintained of the amount of information received, such that if information reception is interrupted it can later resumed, even from a different listening location, optionally a predetermined number of seconds earlier, whereby a user can control when they complete receiving information and the last said predetermined number of seconds of information can be repeated to aid in recalling where the information was interrupted.

17. The methods of claims 1 or 12 wherein said information is streaming audio.
18. The methods of claims 1 or 12 wherein said network is the public Internet.
19. The methods of claims 1 or 12 wherein said references are uniform resource locators.
20. The methods of claims 1 or 12 wherein said information is used as it is received.
21. The methods of claims 1 or 12 wherein said information is stored as it is received, available to be used at a later time,
whereby error-free and non-real-time transmission can be used to both improve the quality of the received information, and accommodate slower networks.
22. The methods of claims 1 or 12 wherein said information is simultaneously received by a plurality of users,
whereby the transmission bandwidth can be simultaneously shared by many users, thereby reducing network traffic.

End of Claims